

REMARKS

Claims 1-5, 7-10 and 12 are pending in this application and remain unamended. Claims 1 and 7 have been amended, and claims 6 and 11 have been cancelled. Claim 1 includes the subject matter of former claim 6, and claim 7 includes the subject matter of former claim 11. Claims 13-22 were previously cancelled.

35 USC § 103(a)

Claims 1-5, 7-10 and 12 were rejected under 35 U.S.C. 103(a) as being unpatentable over Shimada et al. (5,546,375) in view of Yasukawa (6,818,921). Claims 6 and 11 were rejected under 35 U.S.C. 103(a) as being unpatentable over Shimada et al. (5,546,375) and Yasukawa (6,818,921) as applied to former claims 1 and 7 and further in view of Sugahara et al. (5,504,376). Claims 1-5, 7-10 and 12 are patentable over Shimada in view of Yasukawa and further in view of Sugahara et al.

For a prima facie case of obviousness, each element of a claim must be taught in the references themselves, and the references must provide motivation to one of ordinary skill in the art to make or use the claimed invention.

As noted in the office action, Shimada lacks an inclusion of the amorphous silicon making up the tip sub-layer, and also lacks an outer layer disposed on the tip sub-layer formed of a silicide material wherein the silicide includes a metal having a silicide formation temperature below a melting temperature of the metal material of the chip component.

Yasukawa does not disclose a tip and not a tip attached to a chip component. It describes an electro-optical apparatus using silicon on insulator techniques. Yasukawa teaches away from "the silicide includes a metal having a silicide formation temperature below a melting temperature of the metal material of the chip component." In col. 12, lines 20-29, Yasukawa states "the light shield film comprises a film including a metal of high temperature point..." Additionally, at col. 36, lines 57 to col. 37, line 10, heat treatments in the range of 850 to 1300 degrees C and then "a film thickness of about 200 nm is formed on the entire surface of the thus heat treated substrate main body 10A by a sputtering method, to include the metal, the metallic silicide, the metallic alloy film

comprising Ti, Cr, W, Ta, Mo, Pd or the like." This is with respect to Figure 9(a). The process continues and for Figure 9(i) "the first storage capacitance electrode if together with the semiconductor layer 1a constituting the pixel switching TFT 30 is thermally oxidized at a temperature of about 850 to 1300° C., preferably, at a temperature of about 1000° C. for about 72 minutes." These are temperature ranges which Yasukawa describes as high and an aspect of its invention (See col. 12, lines 17-20 "In another aspect of the second electro-optical apparatus of the present invention, the light shield film comprises a metal of high melting point. The use of metal or metallic silicides in Yasukawa is for high temperature treatments which do not suggest or disclose or teach "the silicide includes a metal having a silicide formation temperature below a melting temperature of the metal material of the chip component" which is at or below 500 Degrees C.

In view of the teachings of Yasukawa directed to an electro-optical apparatus with a light shield film, one of ordinary skill in the art would not be motivated to use a refractory metal silicide such as CrSi₂ as listed in Sugahara et al. The combination of Shimada in view of Yasukawa in further view of Sugahara fails to suggest or disclose or motivate one of ordinary skill in the art to make "a tip attached to a chip component for making a readable change into a storage medium" which includes "an outer layer disposed on the tip sub-layer formed of a silicide material ... wherein the silicide includes a metal having a silicide formation temperature below a melting temperature of the metal material of the chip component." Therefore, claim 1 is patentable over Shimada in view of Yasukawa in further view of Sugahara.

Claims 4-5

Claims 4-5 depend from claim 1 so the arguments with respect to claim 1 are applicable to them as well; thus, these claims are also patentable over Shimada in view of Yasukawa in further view of Sugahara.

Claims 7-10 and 12

The arguments presented for claims 1-5 are also applicable to claims 7-10 and 12; and these claims are also patentable over Shimada in view of Yasukawa in further view of Sugahara.

Conclusion

In light of the arguments presented above, pending claims 1-5, 7-10 and 12 are in condition for allowance, and applicants respectfully request a prompt notice of allowance.

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Respectfully Submitted on Behalf of Applicants

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